WHAT IS CLAIMED IS:

1. A method of treating staphylococcal infection in a mammal, comprising administering to the mammal an effective amount of at least one lysostaphin analogue.

2. The method of claim 1, wherein the lysostaphin analogue(s) is administered together with at least one other antimicrobial agent.

3. The method of claim 2, wherein the other antimicrobial agent is a rifamycin or a glycopeptide.

4. A method of treating a staphylococcal infection of at least one organ or tissue selected from the group consisting of heart valve, blood, kidney, lung, bone and meninges, comprising selecting a mammal suffering from at least one of said disease conditions; and administering to the mammal an effective amount of a lysostaphin analogue.

5. A method of treating a staphylococcal infection associated with a catheter or a prosthetic device, comprising selecting a mammal suffering from such an infection; and administering to the mammal an effective amount of a lysostaphin analogue.

6. The method of claim 1, 4 or 5 wherein the lysostaphin analogue is lysostaphin or a variant thereof which exhibits the biological activity of proteolytic attack against glycine-containing bridges in the cell wall peptidoglycan of staphylococci.

7. The method of claim 4 or 5, wherein the infection is endocarditis.

8. The method of claim 4 or 5, wherein the infection is osteomyelitis.

9. The method of claim 4 or 5, wherein the infection is bacteremia.

10. The method of claim 7, wherein the analogue is lysostaphin.

11. The method of claim 8, wherein the analogue is lysostaphin.

12. The method of claim 9, wherein the analogue is lysostaphin.

13. The method of claim 1, 4 or 5, wherein the mammal is a human.

14. The method of claim 1, 4 or 5, wherein the staphylococcal infection is at least partially resistant to an antimicrobial agent other than lysostaphin.

15. The method of claim 14, wherein the antimicrobial agent is a beta-lactam antimicrobial agent or vancomycin.

16. The method of claim 15, wherein the beta-lactam is methicillin.

17. The method of claim 1, 4 or 5 wherein the lysostaphin analogue is recombinantly produced.

18. The method of claim 17 wherein the analogue is lysostaphin.

19. The method of claim 1, 4 or 5, wherein the analogue(s) is administered by direct instillation, by inhalation or by a parenteral route.

20. The method of claim 19 wherein the analogue(s) is administered intravenously, intramuscularly, subcutaneously, intraperitoneally or intrathecally.

21. The method of claim 4 or 5, wherein the lysostaphin analogue is administered together with at least one other antimicrobial agent.

22. The method of claim 21, wherein the other antimicrobial agent is a rifamycin or a glycopeptide.

23. The method of claim 1, 4 or 5, wherein the analogue(s) is administered in an amount not to exceed 50 mg/kg per dose.

24. The method of claim 23, wherein the amount of analogue administered is between 0.5 mg/kg/day and 200 mg/kg/day.

25. The method of claim 24, wherein the amount of analogue administered is between 3 mg/kg/day and 50 mg/kg/day.

26. The method of claim 25, wherein the amount of analogue administered is between 3 mg/kg/day and 25 mg/kg/day.

27. The method of claim 24, wherein the amount of analogue administered is no more than 45 mg/kg/day.

28. A therapeutic composition for the treatment of staphylococcal infection, comprising a lysostaphin analogue having the biological activity of proteolytic attack against glycine-containing bridges in the cell wall peptidoglycan of staphylococci and a pharmaceutically acceptable carrier.

29. The therapeutic composition of claim 28, wherein the composition is suitable for parenteral administration to a human.

30. The composition of claim 28, wherein the composition further comprises a second antimicrobial agent.

31. The composition of claim 28, wherein the lysostaphin analogue is recombinantly produced.